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EXAMINER
INGVOLDSTAD, BENNETT

ART UNIT	PAPER NUMBER
2427	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/553,346	SAKAMOTO, KENJI	
	Examiner	Art Unit	
	Bennett Ingvoldstad	2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-14,16-23 and 25-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-14,16-23 and 25-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 November 2008 has been entered.

Response to Arguments

2. Applicant's arguments filed 14 November 2008 have been fully considered, but are moot in view of the new rejections.

3. Please note that the Haines '589 reference used in the previous rejections has been replaced with the Haines '992 reference, which teaches the additional subject matter of the new and amended claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-7, 9-14, 16-23, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamura (US 5883621) in view of Haines (US 2003/0080992).

Claim 1: Iwamura discloses a display device (integrated receiver decoder 100 in conjunction with TV set 102 [Fig 1]), comprising:

- reception means for receiving data transmitted […] from a plurality of transmission devices (IRD 100 receives data from DVD 106, VCRs 108, 112, minidisk recorder 110 [Fig 1]);
- display means for displaying information (TV set 102 [Fig 1]); and
- control means for controlling a function of the display device (IRD 100 outputs received signals to the display [Figs 2a,b]), wherein the control means includes:
- reception state detection means for detecting a state of reception of the reception means (network reception connections are discovered upon startup and when a new node joins the network [Fig 3] [col. 4, l. 55 – col. 5, l. 50]); and
- display control means for controlling the display means so that the display means displays images respectively indicating the plurality of transmission devices, based on the state of reception detected by the reception state detection means (the connected transmission devices are displayed as icons on a screen [Fig 6] [col. 1, l. 64 – col. 2, l. 7]).

Iwamura does not disclose that the data transmission is a wireless transmission using a degree detection means, or, consequently, that the magnitude of the detected degree is displayed as claimed.

Haines teaches a wireless data network method for transmitting data between devices, the method comprising establishing a network map for display (Fig 7, paras [0043], [0044]) using a signal strength measurement (para [0021]). Haines' map displays the relative distances between devices and thus displays the device "images for respectively indicating the plurality of transmission devices in a form according to the degree of reception detected by the reception degree detection means", due to the distances between the images being based on the degree of reception or signal strength [para 0021]. Haines further contemplates highlighting device images using outline or color to illustrate attributes of the corresponding devices (para [0047]), as well as prioritizing devices based on distance and signal strength (para [0048]), where a prioritized device may be highlighted (see Fig 7, highlighting of 720f and the description at [0048]). Therefore, the outline or color of a device image may correspond to the magnitude of the degree of the reception, ie, the signal strength, due to the prioritization and highlighting of device images based on distance and signal strength.

It is obvious to make a simple substitution to yield predictable results. Therefore it would have been obvious to have replaced the wired transmission method disclosed by Iwamura with the wireless transmission method disclosed

by Haines because both transmission methods create a network topology map for displaying the networked devices (compare Iwamura Fig 6 and Haines Fig 7). Therefore the simple substitution would have yielded the predictable result of preserving the functionality of the system while further providing benefits such as increased device mobility due to wireless transmission and a more detailed map display.

Claim 2, dependent on claim 1: Iwamura in view of Haines further discloses wherein the reception state detection means detects the state of reception, based on at least one of electric field strength of a received radio wave and an error ratio of received data (received signal strength - Haines [0021]).

Claim 3: Iwamura discloses a display device (integrated receiver decoder 100 in conjunction with TV set 102 [Fig 1]), comprising:

- communication means for performing […] communication of data with each of a plurality of communication devices (IRD 100 receives data from DVD 106, VCRs 108, 112, minidisk recorder 110 [Fig 1]);
- display means for displaying information (TV set 102 [Fig 1]); and
- control means for controlling a function of the display device (IRD 100 outputs received signals to the display [Figs 2a,b]),
- wherein the control means includes:

- communication state detection means for detecting a state of communication of the communication means (network communication connections are discovered upon startup and when a new node joins the network [Fig 3] [col. 4, l. 55 – col. 5, l. 50]); and
- display control means for controlling the display means so that the display means displays images respectively indicating the plurality of communication devices, based on the state of communication detected by the communication state detection means (the connected transmission devices are displayed as icons on a screen [Fig 6] [col. 1, l. 64 – col. 2, l. 7]).

Iwamura does not disclose that the data transmission is a wireless transmission using a degree detection means, or, consequently, that the magnitude of the detected degree is displayed as claimed.

Haines teaches a wireless data network method for transmitting data between devices, the method comprising establishing a network map for display (Fig 7, paras [0043], [0044]) using a signal strength measurement (para [0021]). Haines' map displays the relative distances between devices and thus displays the device "images for respectively indicating the plurality of transmission devices in a form according to the degree of reception detected by the reception degree detection means", due to the distances between the images being based on the degree of reception or signal strength [para 0021]. Haines further contemplates highlighting device images using outline or color to illustrate attributes of the

corresponding devices (para [0047]), as well as prioritizing devices based on distance and signal strength (para [0048]), where a prioritized device may be highlighted (see Fig 7, highlighting of 720f and the description at [0048]). Therefore, the outline or color of a device image may correspond to the magnitude of the degree of the reception, ie, the signal strength, due to the prioritization and highlighting of device images based on distance and signal strength.

It is obvious to make a simple substitution to yield predictable results. Therefore it would have been obvious to have replaced the wired transmission method disclosed by Iwamura with the wireless transmission method disclosed by Haines because both transmission methods create a network topology map for displaying the networked devices (compare Iwamura Fig 6 and Haines Fig 7). Therefore the simple substitution would have yielded the predictable result of preserving the functionality of the system while further providing benefits such as increased device mobility due to wireless transmission and a more detailed map display.

Claim 4 corresponds to claim 2 and is met as such.

Claim 5, dependent on claim 3: Iwamura in view of Haines further discloses wherein the display control means determines a distance from the display device, based on the degree of communication detected by the communication degree

detection means (Haines [0021]), and controls the display means so that the display means displays the images respectively indicating the plurality of communication devices, based on the determined distance (Haines Fig 7).

Claim 6, dependent on claim 5: Iwamura in view of Haines further discloses wherein the display control means controls the display means so that the display means displays according to perspective (a top-down perspective - Haines Fig 7).

Claim 7, dependent on claim 3: Iwamura in view of Haines further discloses wherein the communication degree detection means detects a degree of communication with communication device(s) with which a communication link is established, out of the plurality of communication devices (Haines [para 0021]).

Claim 9, dependent on claim 3: Iwamura in view of Haines discloses storage means for storing information regarding rooms in which the plurality of communication devices are placed (for storing a map of the building in relation to device locations [Haines 0044]),
wherein the display control means performs display control, so as to display an image for indicating each of the rooms (Haines Fig 7), based on a degree of communication of communication device(s) placed in each of the rooms, out of the degree of communication detected by the communication degree detection

means (based on distance which is determined by communication signal strength - Haines [0021]).

Claim 10: Iwamura discloses a […] communication system made by connecting one or more communication devices with a display device so that the one or more communication devices can […] communicate with the display device (DVD 106, VCRs 108, 112, minidisk recorder 110 communicate with display device 102 via IRD 100 [Fig 1]), wherein:

- the one or more communication devices include communication means for performing […] communication of data with the display device [Fig 1], and
- control means for controlling a function of the one or more communication devices (controlling playback from a device [Fig 11]);
- the display device (IRD 100 in conjunction with TV 102 [Fig 1]) includes
- communication means for performing […] communication of data with the one or more communication devices (1394 interface [Fig 2b]),
- display means for displaying and outputting information (analog video output [Fig 2b), and
- control means for controlling a function of the display device (cpu 312 [Fig 2b]) ;
- the control means of the one or more communication devices includes

- communication state detection means for detecting a state of communication of the communication means (detecting an active communication connection and displaying it via arrows 925 [Fig 12]), and
- communication state transmission means for transmitting, via the communication means, to the display device, the state of communication detected by the communication state detection means (in order to display active communication arrows 925 [Fig 12]); and
- the control means of the display device includes communication state acquisition means for acquiring, via the communication means, the state of communication detected by the communication state detection means of the one or more communication devices (in order to display active communication arrows 925 [Fig 12]), and
- display control means for controlling the display means so that the display means displays an image or images indicating the one or more communication devices, based on the state of communication acquired by the communication state acquisition means (displaying active communication arrows 925 [Fig 12]).

Iwamura does not disclose that the data transmission is a wireless transmission using a degree detection means, or, consequently, that the magnitude of the detected degree is displayed as claimed.

Haines teaches a wireless data network method for transmitting data between devices, the method comprising establishing a network map for display (Fig 7,

paras [0043], [0044]) using a signal strength measurement (para [0021]). Haines' map displays the relative distances between devices and thus displays the device "images for respectively indicating the plurality of transmission devices in a form according to the degree of reception detected by the reception degree detection means", due to the distances between the images being based on the degree of reception or signal strength [para 0021]. Haines further contemplates highlighting device images using outline or color to illustrate attributes of the corresponding devices (para [0047]), as well as prioritizing devices based on distance and signal strength (para [0048]), where a prioritized device may be highlighted (see Fig 7, highlighting of 720f and the description at [0048]). Therefore, the outline or color of a device image may correspond to the magnitude of the degree of the reception, ie, the signal strength, due to the prioritization and highlighting of device images based on distance and signal strength.

It is obvious to make a simple substitution to yield predictable results. Therefore it would have been obvious to have replaced the wired transmission method disclosed by Iwamura with the wireless transmission method disclosed by Haines because both transmission methods create a network topology map for displaying the networked devices (compare Iwamura Fig 6 and Haines Fig 7). Therefore the simple substitution would have yielded the predictable result of preserving the functionality of the system while further providing benefits such as

increased device mobility due to wireless transmission and a more detailed map display.

Claims 11-14 and 16 correspond to claims 4-7 and 9 respectively and are met as such.

Claim 17, dependent on claim 10: Iwamura in view of Haines further discloses wherein there are a plurality of the communication devices (DVD 106, VCRs 108, 112, minidisk recorder 110 [Fig 1]),

- the communication means of each of the communication devices performs wireless communication of data with other communication device(s) as well as with the display device (communication between devices 900 and 903 as well as between device 904 and display device 905/906 [Fig 12]),
- the communication degree detection means of each of the communication devices detects a degree of communication with other communication device(s) as well as with the display device (Haines [0021]),
- the display control means of the display device controls the display means so that the display means displays the images respectively indicating the communication devices, based on the degree of communication of the communication devices acquired by the communication degree acquisition means (Haines Fig 7).

Claim 18, dependent on claim 10: Iwamura in view of Haines further discloses wherein there are a plurality of the communication devices (DVD 106, VCRs 108, 112, minidisk recorder 110 [Fig 1]),

- the communication means of each of the communication devices performs wireless communication of data with other communication device(s) as well as with the display device (communication between devices 900 and 903 as well as between device 904 and display device 905/906 [Fig 12]),
- the communication degree detection means of each of the communication devices detects a degree of communication with other communication device(s) (Haines [0021]),
- the display device further includes communication degree detection means for detecting a degree of communication with each of the communication devices (Haines [0021]), and
- the display control means controls the display means so that the display means displays the images for indicating the communication devices, based on (i) the degree of communication of each of the communication devices acquired by the communication degree acquisition means and (ii)the degree of communication with each of the communication devices detected by the communication degree detection means (Haines Fig 7).

Claim 19: Iwamura discloses a control method of a display device including:

- reception means for receiving data transmitted [...] from a plurality of transmission devices (IRD 100 receives data from DVD 106, VCRs 108, 112, minidisk recorder 110 [Fig 1]); and display means for displaying information (TV 102 [Fig 1]),
- wherein said display device detects a state of reception of the reception means, and displays images respectively indicating the plurality of transmission devices, based on the detected state of reception [Fig 12].

Iwamura does not disclose that the data transmission is a wireless transmission using a degree detection means, or, consequently, that the magnitude of the detected degree is displayed as claimed.

Haines teaches a wireless data network method for transmitting data between devices, the method comprising establishing a network map for display (Fig 7, paras [0043], [0044]) using a signal strength measurement (para [0021]). Haines' map displays the relative distances between devices and thus displays the device "images for respectively indicating the plurality of transmission devices in a form according to the degree of reception detected by the reception degree detection means", due to the distances between the images being based on the degree of reception or signal strength [para 0021]. Haines further contemplates highlighting device images using outline or color to illustrate attributes of the corresponding devices (para [0047]), as well as prioritizing devices based on distance and signal strength (para [0048]), where a prioritized device may be highlighted (see Fig 7, highlighting of 720f and the description at [0048]).

Therefore, the outline or color of a device image may correspond to the magnitude of the degree of the reception, ie, the signal strength, due to the prioritization and highlighting of device images based on distance and signal strength.

It is obvious to make a simple substitution to yield predictable results. Therefore it would have been obvious to have replaced the wired transmission method disclosed by Iwamura with the wireless transmission method disclosed by Haines because both transmission methods create a network topology map for displaying the networked devices (compare Iwamura Fig 6 and Haines Fig 7). Therefore the simple substitution would have yielded the predictable result of preserving the functionality of the system while further providing benefits such as increased device mobility due to wireless transmission and a more detailed map display.

Claim 20: Iwamura discloses a control method of a display device including: communication means for performing [...] communication of data with each of a plurality of communication devices (IRD 100 receives data from DVD 106, VCRs 108, 112, minidisk recorder 110 [Fig 1]); and display means for displaying information (TV 102 [Fig 1]),

wherein said display device detects a state of communication of the communication means, and displays images respectively indicating the plurality

of communication devices, based on the detected state of communication [Fig 12].

Iwamura does not disclose that the data transmission is a wireless transmission using a degree detection means, or, consequently, that the magnitude of the detected degree is displayed as claimed.

Haines teaches a wireless data network method for transmitting data between devices, the method comprising establishing a network map for display (Fig 7, paras [0043], [0044]) using a signal strength measurement (para [0021]). Haines' map displays the relative distances between devices and thus displays the device "images for respectively indicating the plurality of transmission devices in a form according to the degree of reception detected by the reception degree detection means", due to the distances between the images being based on the degree of reception or signal strength [para 0021]. Haines further contemplates highlighting device images using outline or color to illustrate attributes of the corresponding devices (para [0047]), as well as prioritizing devices based on distance and signal strength (para [0048]), where a prioritized device may be highlighted (see Fig 7, highlighting of 720f and the description at [0048]). Therefore, the outline or color of a device image may correspond to the magnitude of the degree of the reception, ie, the signal strength, due to the prioritization and highlighting of device images based on distance and signal strength.

It is obvious to make a simple substitution to yield predictable results. Therefore it would have been obvious to have replaced the wired transmission method disclosed by Iwamura with the wireless transmission method disclosed by Haines because both transmission methods create a network topology map for displaying the networked devices (compare Iwamura Fig 6 and Haines Fig 7). Therefore the simple substitution would have yielded the predictable result of preserving the functionality of the system while further providing benefits such as increased device mobility due to wireless transmission and a more detailed map display.

Claim 21: Iwamura discloses a control method of a wireless communication system made by connecting one or more communication devices with a display device so that the one or more communication devices can […] communicate with the display device (IRD 100 receives data from DVD 106, VCRs 108, 112, minidisk recorder 110 [Fig 1]), wherein:

- the one or more communication devices include communication means for performing […] communication of data with the display device [Fig 1],
- the display device includes communication means for performing […] communication of data with the one or more communication devices [Fig 1], and display means for displaying information (TV 102 [Fig 1]),
- said […] communication system detects a state of communication of communication means of the one or more communication devices,

transmits the detected state of communication from the one or more communication devices to the display device, and displays an image or images indicating the one or more communication devices on display means of the display device, based on the transmitted state of communication [Fig 12].

Iwamura does not disclose that the data transmission is a wireless transmission using a degree detection means, or, consequently, that the magnitude of the detected degree is displayed as claimed.

Haines teaches a wireless data network method for transmitting data between devices, the method comprising establishing a network map for display (Fig 7, paras [0043], [0044]) using a signal strength measurement (para [0021]). Haines' map displays the relative distances between devices and thus displays the device "images for respectively indicating the plurality of transmission devices in a form according to the degree of reception detected by the reception degree detection means", due to the distances between the images being based on the degree of reception or signal strength [para 0021]. Haines further contemplates highlighting device images using outline or color to illustrate attributes of the corresponding devices (para [0047]), as well as prioritizing devices based on distance and signal strength (para [0048]), where a prioritized device may be highlighted (see Fig 7, highlighting of 720f and the description at [0048]). Therefore, the outline or color of a device image may correspond to the magnitude of the degree of the reception, ie, the signal strength, due to the

prioritization and highlighting of device images based on distance and signal strength.

It is obvious to make a simple substitution to yield predictable results. Therefore it would have been obvious to have replaced the wired transmission method disclosed by Iwamura with the wireless transmission method disclosed by Haines because both transmission methods create a network topology map for displaying the networked devices (compare Iwamura Fig 6 and Haines Fig 7). Therefore the simple substitution would have yielded the predictable result of preserving the functionality of the system while further providing benefits such as increased device mobility due to wireless transmission and a more detailed map display.

Claim 22, dependent on claim 1: Iwamura in view of Haines further discloses a computer readable medium encoded with a display device control program for causing the display device as set forth in claim 1 to function and for causing a computer to function as the control means (program running on display processor).

Claim 23, dependent on claim 1: Iwamura in view of Haines further discloses a computer readable medium encoded with a wireless communication system control program for causing a wireless communication system as set forth in claim 10 to function, and for causing a computer to function as control means for

both of the communication device and the display device (program running on wireless network interface [Haines 0021] connected to IRD 100 [Iwamura Fig 1]).

Claim 25, dependent on claim 3: Iwamura in view of Haines discloses a computer readable medium encoded with a display device control program for causing the display device as set forth in claim 3 to function and for causing a computer to function as the control means (program running on display processor).

Claim 26, dependent on claim 1: Iwamura in view of Haines teaches indicating which room a device image should be displayed in based on the averages of the degrees of reception obtained from communication with the other devices (Haines [0033]).

Claim 27, dependent on claim 1: Iwamura in view of Haines teaches wherein the degree of reception corresponds to distance of communication device to the reception means (Haines [0021]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bennett Ingvoldstad whose telephone number is (571)270-3431. The examiner can normally be reached on M-F 9-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bennett Ingvoldstad/
Examiner, Art Unit 2427

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427